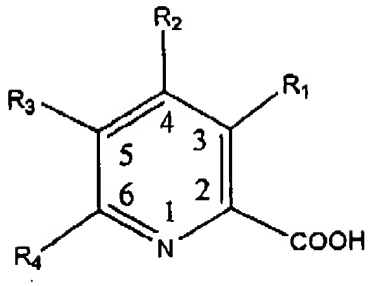
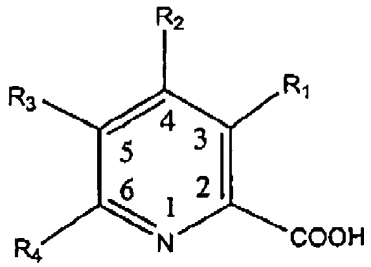


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen, [and] wherein when said agent is adapted for the treatment of sunburn, the agent is not zinc picolinate.

18. (Twice Amended) A pharmacologically active metal ion chelating agent adapted for treatment of a disease, disorder, or condition selected from the group consisting of hepatitis C infections, angiogenesis, sun burn, inflammation associated with acne, metastatic colon cancer and upper respiratory infections, wherein the disease, disorder or condition is mediated by a protein having a metal ion-protein complex, the agent having the following structure:



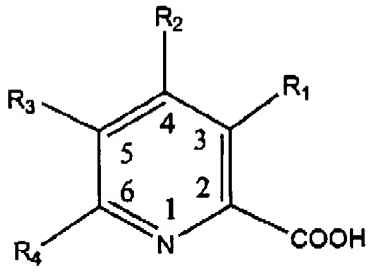
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl

group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

21. (Twice Amended) A method for the treatment of at least one disease, disorder or condition selected from the group consisting of metastatic colon cancer, hepatitis C infections, angiogenesis, sun burn, and upper respiratory infections comprising administering an effective amount of a pharmaceutical composition comprising a metal ion chelating agent to an individual having said at least one disease, disorder or condition [selected from the group consisting of metastatic colon cancer, hepatitis C infections, angiogenesis, sun burn, and upper respiratory infections], the metal ion chelating agent represented by the following structure:

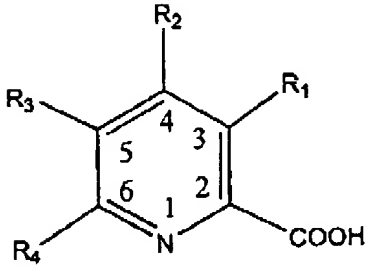


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

39. (Twice Amended) A method for the treatment of at least one disease, disorder or condition selected from the group consisting of metastatic colon cancer, hepatitis C infections, angiogenesis, sun burn and upper respiratory infection comprising administering an effective amount of a pharmaceutical composition comprising a metal ion chelating agent to an individual

having said at least one disease, disorder or condition [selected from the group consisting of metastatic colon cancer, hepatitis C infections, angiogenesis, sun burn, inflammation associated with acne and upper respiratory infection], the metal ion chelating agent represented by the following structure:



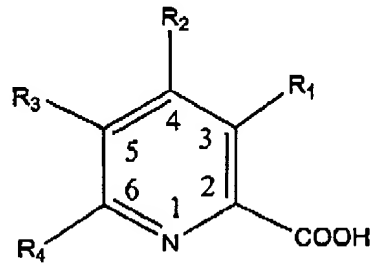
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine and hydrogen; and

R_3 is a butyl group.

---

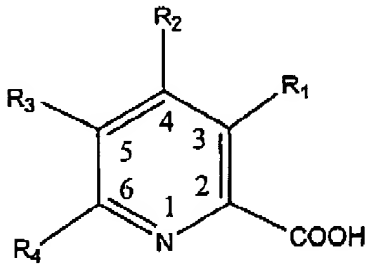
43. (Twice Amended) A systemic preparation comprising approximately 1% to approximately 100% metal ion chelating agent and a pharmacologically acceptable carrier, wherein said metal ion chelating agent is represented by the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen, and wherein said agent is not zinc picolinate.

47. (Once Amended) A systemic preparation comprising approximately 1% to approximately 100% metal ion chelating agent and a pharmacologically acceptable route of administration, wherein said metal ion chelating agent is represented by the following structure:

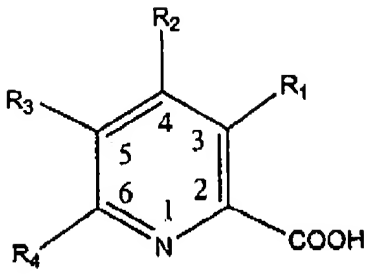


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 is selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

48. (Twice Amended) An intranasal solution from about 0.01 mM to 50 mM metal ion chelating agent and at least one pharmacologically suitable isotonic vehicle, said metal ion chelating agent represented by the following structure:



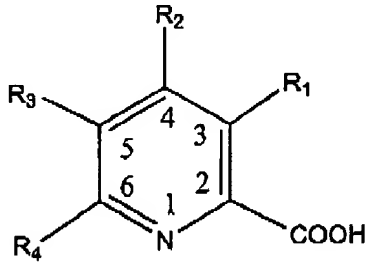
or a pharmacologically acceptable salt thereof,

C6 Cont

wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen, and wherein said agent is not zinc picolinate.

53. (Once Amended) An intranasal solution comprising in the range between about 0.01 mM to about 50 mM metal ion chelating agent and at least one pharmacologically suitable isotonic vehicle, said metal ion chelating agent represented by the following structure:

C7



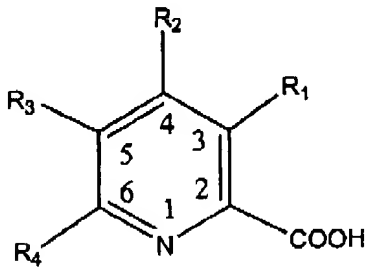
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 is selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group,

isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen;

and R_3 is a butyl group.

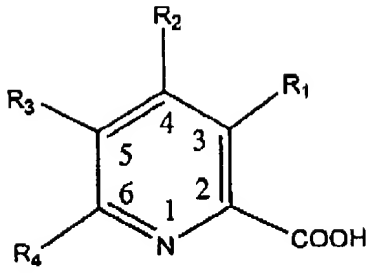
65. (Twice Amended) An ophthalmic preparation adapted for the control of angiogenesis comprising in the range between about 0.01% to about 99% metal ion chelating agent and a pharmacologically acceptable carrier, wherein said metal ion chelating agent is represented by the following formula:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

69. (Twice Amended) An ophthalmic preparation adapted for the control of angiogenesis comprising from about 0.01% to about 99% metal ion chelating agent and a pharmacologically acceptable carrier, wherein said metal ion chelating agent is represented by the following formula:



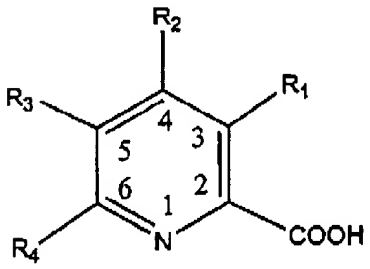
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

C9

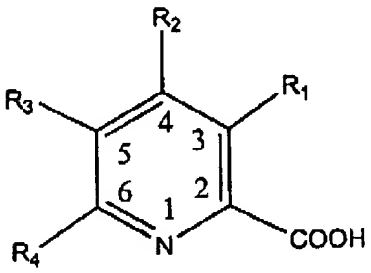
70. (Twice Amended) A lavage comprising at least one metal ion chelating agent represented by the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

74. (Twice Amended) A lavage comprising at least one metal ion chelating agent represented by the following structure:

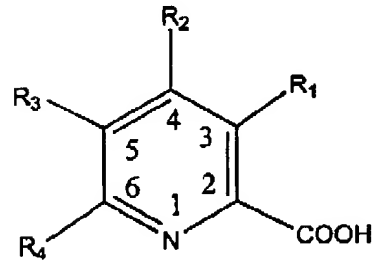


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

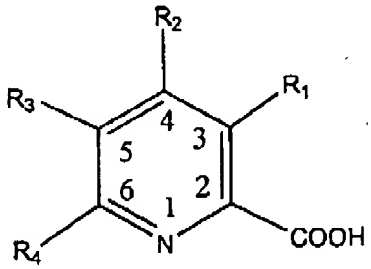
75. (Twice Amended) A preservative comprising a metal ion chelating agent, said metal ion chelating agent represented by the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

78. (Twice Amended) A preservative comprising a metal ion chelating agent, said metal ion chelating agent represented by the following structure:

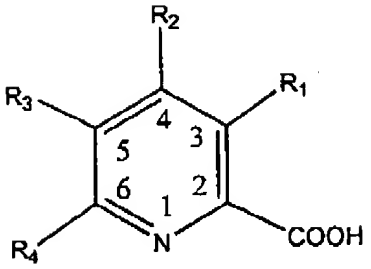


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

79. (Twice Amended) A method of preserving an item comprising physically contacting the item with a composition comprising a metal ion chelating agent, said metal ion chelating agent represented by the following structure:



or a pharmacologically acceptable salt thereof,

C11 Cont

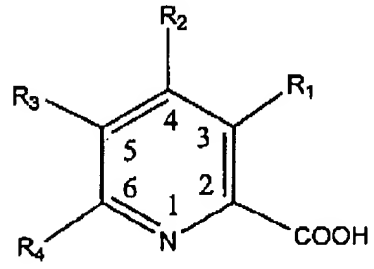
wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

81. (Twice Amended) The method of claim 79 wherein said [step of contacting said item with said metal ion chelating agent comprises contacting said item with a] composition [comprising] comprises said metal ion chelating agent, but in a concentration of less [that] than about 0.025% by weight.

C12

82. The method of claim 79 wherein R_1, R_2, R_3 and R_4 are hydrogen.

83. (Twice Amended) A method of preserving an item comprising physically contacting said item with [said] a composition comprising a metal ion chelating agent, said metal ion chelating agent represented by the following structure:



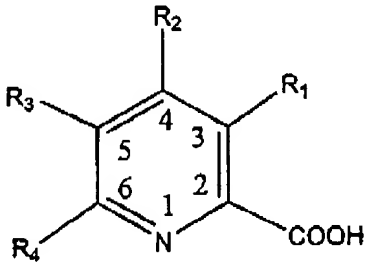
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

Please add the following claims:

84. (New) A method for treating inflammation associated with acne comprising administering to an individual suffering from such inflammation a composition comprising a compound having the following structure:



or a pharmacologically acceptable salt thereof,

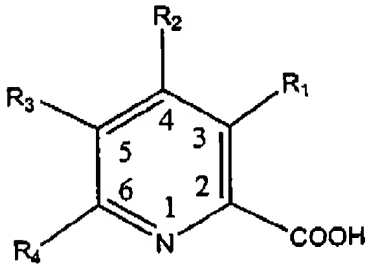
wherein R_1, R_2, or R_4 are independently selected from the group consisting of a peptide of sixteen amino acids, carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is selected from the group consisting of a peptide of sixteen amino acids, carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

85. (New) The method of claim 84, wherein the composition comprises 5% to 10% of the compound.

86. (New) The method of claim 84, wherein the compound blocks a DNAj protein.

87. (New) A method comprising removing a metal ion from a metalloprotein by means of a compound having the following structure:



C13

or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a [peptide of sixteen amino acids,] carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

88. (New) The method of claim 87, wherein the metal ion is zinc and the metalloprotein is a zinc finger or zinc ring protein.

89. (New) A method as set forth in claim 87 wherein the removal of the metal ion inhibits a function of the metalloprotein.

90. (New) The method of claim 89, wherein the metalloprotein is a metal dependent enzyme.

91. (New) The method of claim 89, wherein the metalloprotein is a zinc finger or zinc ring protein.

92. (New) The method of claim 91, wherein the metalloprotein is Lambda-1, Rho-3, NSP1, Ncp7, TAT, E6, E7, E1A, NS2(+NS3), HSV-1:ICPO, HSV-2:MDBP, ICP6:ribonucleotide, Reductase, Equine Herpes virus-1, or ZR.

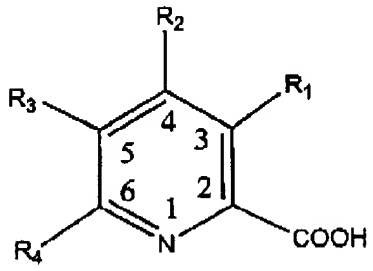
93. (New) The method of claim 91, wherein the compound interacts with at least one zinc finger or zinc ring domain of the metalloprotein.

94. (New) The method of claim 89, wherein the compound denatures the metalloprotein.

95. (New) The method of claim 89, wherein the metal ion is zinc, iron, or copper.

96. (New) A method for inhibiting activity of a heat shock protein, comprising contacting a cell, that was subjected to a stress stimulus, with a composition comprising a compound having the following structure:

C13



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen,

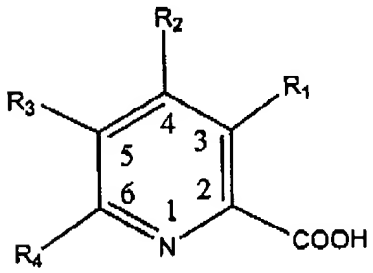
wherein the compound blocks a metalloprotein.

97. (New) The method of claim 99, wherein the heat shock protein is Hsp27 or Hsp70.

98. (New) The method of claim 99, wherein the metal ion protein is a zinc finger or zinc ring protein.

99. (New) The method of claim 98, wherein the zinc finger or zinc ring protein is a DNAj protein.

100. (New) A method for inhibiting cell growth, comprising the step of exposing a cell to a compound having the following structure:



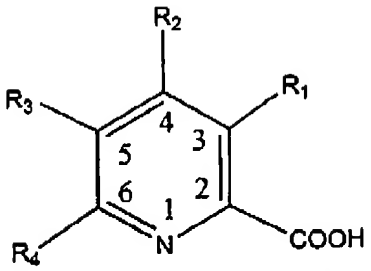
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen,

wherein the compound chelates a metal ion.

101. (New) The method of claim 100, wherein the cell is WI-38, LoVo, KB, or MDA-48 cells.

102. (New) A method for inhibiting cell growth, comprising contacting a cell with a composition comprising an agent having the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen,

wherein the compound chelates a metal ion.

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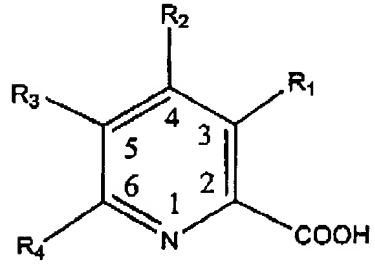
103. (New) The method of claim 102, wherein the cell is WI-38, LoVo, KB, or MDA-48 cells.

104. (New) An immunogenic composition comprising a metalloprotein that is covalently bound to a compound having the following structure:



or a pharmacologically acceptable salt thereof,

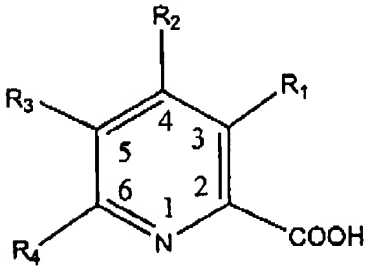
wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

105. (New) The immunogenic composition of claim 104, further comprising an adjuvant.

106. (New) The immunogenic composition of claim 105, wherein the adjuvant is keyhole limpet hemocyanin (KLH).

107. (New) A method for preparing an immunogenic composition, comprising the steps of:

(a) binding a metalloprotein to a compound having the following structure:



C13

or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

(b) conjugating the metalloprotein to an adjuvant.

108. (New) A method for modulating an immune response in an individual, comprising administering to the individual an immunogenic composition of claim 106 or 107.

109. (New) A composition comprising interferon and a compound having the following structure: